perceptible to the human body in its ordinary exposure to the atmosphere, and which depends upon the rapidity with which its own heat is carried off by the conducting power and currents of the atmosphere. To estimate this insensible cold, the author raised the thermometer to 120°, and then carried it into the open air. As soon as the mercury had fallen to 100°, the rate of its further descent, during every 10″, was noted for half a minute, in different states of the atmosphere in regard to wind and moisture. These experiments, which are given in the form of tables, show the powerful effect of wind in increasing the rate of cooling, and consequently of exciting the sensation of cold in the human body, independent of any actual low temperature of the atmosphere.

On the Transit Instrument of the Cambridge Observatory; being a Supplement to a former Paper. By Robert Woodhouse, *Esq. Plumian Professor of Astronomy in the University of Cambridge.* Read January 19, 1826. [*Phil. Trans.* 1826, Part II. *p.* 75.]

This communication is intended merely as a supplement to a former paper on the same subject, printed in the Transactions of this Society, in which a deviation of the transit instrument from the plane of the meridian, arising from a difference of expansion in its braces, was pointed out. As no instance was there given of the magnitude of this deviation, one is here adduced in which the inferior passage of the pole star was found to have been retarded twenty-five seconds in consequence of the sun having been allowed to shine on the upper western brace, the object-glass of the transit being towards the zenith. The author adds, that in consequence of the detection of this source of inequality, he now views with great suspicion all his previous observations of solar transits.

Account of a Series of Observations, made in the Summer of the Year 1825, *for the purpose of determining the Difference of Meridians of the Royal Observatories of Greenwich and Paris; drawn up by* J. F. W. Herschel, *Esq. M.A. Sec. R.S. Communicated by the Board of Longitude.* Read January 12, 1826. [*Phil. Trans.* 1826, Part II. *p.* 77.]

The operations, of which this paper contains an account, were undertaken by the British Board of Longitude, in conjunction with the French Ministry of War, at the invitation of the latter, for the purpose of connecting the Royal Observatories of Greenwich and Paris, by means of signals contemporaneously observed along a chain of stations established for that purpose between them. The signals employed were the explosions of proper quantities of gunpowder, elevated to a great height in the air by rockets fired at three stations, two on the French, and one on the English side of the Channel, and observed at the observatories, and at two stations intermediate between those at which they were fixed. These two stations